



SERIES 6000 ●

AW 6082 (Al Si1MgMn)

6082 aluminium is a medium mechanical resistance and high resistance to corrosion alloy. In the 6000 series, it is the alloy that presents better resistance being able to replace 6021 alloy in many applications. It is also excellent for welding.



CHEMICAL COMPOSITION (WEIGHT %) (EN 573 - 3)

ELEMENTS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Al
Minimum	0.7	-	-	0.4	0.6	-	-	-	-
Maximum	1.3	0.5	0.1	1	1.2	0.25	0.2	0.1	Rest

MECHANICAL PROPERTIES

PLATES (EN 485-2)

THICKNESS (mm)	TEMPER	Rm* (MPa)	Rp0.2* (MPa)	A50 (%)	A (%)	HB - BRINELL HARDNESS
1.5 - 3	T6	310	260	7	7	94
3 - 6		310	260	10	10	94
6 - 12.5	T651	300	255	9	9	91
12.5 - 60		295	240	-	8	89
60 - 100		295	240	-	7	89
100 - 150		275	240	-	6	84
150 - 175		275	230	-	4	83

*Minimum values.

ROUND RODS (EN 755-2) - EXTRUDED

DIAMETER (mm)	Rm* (MPa)	Rp0.2* (MPa)	A (%)	A50 (%)	HB - BRINELL HARDNESS
≤ 20	295	250	8	6	95
20 - ≤ 150	310	260	8	-	95
150 - ≤ 200	280	240	6	-	95
200 - ≤ 250	270	200	6	-	95

ROUND RODS (EN 754-2) - CALIBRATED

DIAMETER (mm)	Rm* (MPa)	Rp0.2* (MPa)	A (%)	A50 (%)	HB - BRINELL HARDNESS
≤ 80	310	255	10	9	95

*Minimum values.

POLY

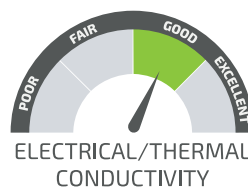


MAIN CHARACTERISTICS

- Good weldability
- Good resistance to corrosion
- Good polishing
- Good anodizing

APPLICATIONS

- Railway rails
- Shipbuilding industry
- Jigs and accessories
- Tools
- Footwear moulds



PHYSICAL PROPERTIES

DENSITY	2.70 g/cm ³
MODULUS OF ELASTICITY	70 000 MPa
LINEAR EXPANSION COEFFICIENT	23.4 x 10 ⁻⁶ /K
THERMAL CONDUCTIVITY	170 W/mK
ELECTRICAL CONDUCTIVITY	27 m/Ohm mm ²



DELIVERY PROGRAM

SHEETS

THICKNESSES (mm)	DIMENSIONS (mm)	SHEET WEIGHT(kg)	STOCK T651
2	1000 x 2000	11.13	●
3	1520 x 3020	37.20	●
4	1520 x 3020	49.60	●
5	1520 x 3020	61.97	●

Average weights of production./ Other dimensions available on request.

PLATES

THICKNESSES (mm)	DIMENSIONS (mm)	PLATE WEIGHT(kg)	STOCK T651
6	1520 x 3020	74.37	●
8	1000 x 2000	44.51	●
	1270 x 2520	69.13	●
10	1520 x 3020	99.15	●
	1020 x 2020	55.65	●
	1270 x 2520	86.41	●
12	1520 x 3020	123.94	●
	1020 x 2020	66.76	●
15	1270 x 2520	103.69	●
	1520 x 3020	148.73	●
20	1020 x 2020	83.45	●
	1270 x 2520	129.62	●
25	1520 x 3020	185.91	●
	1020 x 2020	111.26	●
30	1270 x 2520	172.82	●
	1520 x 3020	247.88	●
35	1020 x 2020	139.08	●
	1270 x 2520	216.03	●
40	1520 x 3020	309.85	●
	1020 x 2020	139.08	●
45	1270 x 2520	216.03	●
	1520 x 3020	309.85	●
50	1020 x 2020	139.08	●
	1270 x 2520	216.03	●
55	1020 x 2020	139.08	●
	1270 x 2520	216.03	●
60	1020 x 2020	139.08	●
	1270 x 2520	216.03	●
65	1020 x 2020	139.08	●
	1270 x 2520	216.03	●
70	1020 x 2020	139.08	●
	1270 x 2520	216.03	●
75	1020 x 2020	139.08	●
	1270 x 2520	216.03	●
80	1020 x 2020	139.08	●
	1270 x 2520	216.03	●
85	1020 x 2020	139.08	●
	1270 x 2520	216.03	●
90	1020 x 2020	139.08	●
	1270 x 2520	216.03	●
95	1020 x 2020	139.08	●
	1270 x 2520	216.03	●
100	1020 x 2020	139.08	●
	1270 x 2520	216.03	●
110	1020 x 2020	139.08	●
	1270 x 2520	216.03	●
120	1020 x 2020	139.08	●
	1270 x 2520	216.03	●
130	1020 x 2020	139.08	●
	1270 x 2520	216.03	●
140	1020 x 2020	139.08	●
	1270 x 2520	216.03	●
150	1020 x 2020	139.08	●
	1270 x 2520	216.03	●

Average weights of production./ Other dimensions available on request.

ROUND RODS

DIAM.(mm) EXTRUDED	WEIGHT (kg/m)	STOCK T6	STOCK T651
Standard lenght 3000mm			
20	0.879	●	-
22	1.064	●	-
25	1.374	●	-
30	1.979	●	-
35	2.693	●	●
40	3.518	●	-
45	4.552	●	●
50	5.497	●	●
55	6.652	●	-
60	7.916	●	●
65	9.291	●	-
70	10.775	●	-
75	12.370	●	-
80	14.074	●	-
85	15.888	●	●
90	17.813	●	-
95	19.837	○	-
100	21.991	●	-
110	26.609	●	-
120	31.667	●	●
130	37.165	●	-
140	43.102	●	-
150	49.480	●	-
160	56.297	●	-
170	63.554	●	-
180	71.251	●	-
190	77.900	○	-
200	86.300	●	-
203	90.800	●	-
210	95.200	●	-
250	135.000	○	-
260	146.000	○	-
300	194.300	○	-

Average weights of production.

Other diameters available on request.

ROUND RODS

DIAM.(mm) CALIBRATED h9/h11	PESO (kg/m)	STOCK T6
Standard lenght 3000mm		
8	0.140	●
9	0.187	●
10	0.219	●
12	0.316	●
14	0.431	●
15	0.494	●
16	0.562	●
18	0.712	●
20	0.879	●
22	1.064	●
25	1.374	●
26	1.486	●
28	1.724	●
30	1.979	●
31	2.113	●
32	2.251	●
35	2.693	●
36	2.850	●
38	3.175	●
40	3.518	●
41	3.696	○
42	3.879	○
43	4.066	○
45	4.552	○
48	5.066	○
50	5.497	○
55	6.652	○
60	7.916	○

Average weights of production.

Other diameters available on request.

BARRAS QUADRADADAS

THICK.(mm) EXTRUDED	WEIGHT (kg/m)	STOCK T6
Standard lenght 3000mm		
30	2.520	●
32	2.867	●
35	3.340	●
40	4.480	●
45	5.670	●
50	7.000	●
60	10.080	●

Average weights of production.

Other thicknesses available on request.

● Standard: generally available from stock ○ Semi-standard: generally not available from stock
 ○ Non-standard: generally not available from stock, manufactured to order and subject to special conditions.